

**Notice of Allowability**

Application No.

10/717,643

Examiner

Elias Desta

Applicant(s)

RAMILLON ET AL.

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on October 12, 2004.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☒ The drawings filed on 12 October 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
PATRICK ASSOUD  
PRIMARY EXAMINER

## Detailed Action

### Amendment

1. The Examiner accepts the amendment to the specification and the drawing filed on October 12, 2004.

### Specification

2. The Examiner accepts the amendment to the specification filed on October 12, 2004.

### Consideration of Prior Art

3. The references cited in the parent application (SN: 10/368,535) are considered per Applicant's request. The cited references are listed here for completeness.
  - a. Bartle et al. (U.S. Patent 4,603,584) teaches acoustic detection of defects in structures.
  - b. Geib et al. (U.S. Patent 5,804,726) teaches acoustic signature analysis for a noisy environment.
  - c. Oravec (U.S. PAP 2003/0023393) teaches acoustic micro imaging method and apparatus for capturing 4D acoustic reflection virtual samples.
  - d. Morais (U.S. Patent 4,036,057) teaches automatic threshold control means for acoustic emission and other informational discriminating systems.

- e. Marko et al. (U.S. PAP 2003/0216889) teaches remote diagnostics and prognostic methods for complex systems.
  - f. Wegerich et al. (U.S. PAP 2002/0183971) teaches a system method and program product for sub-band domain signal validation.
  - g. Wegerich (U.S. PAP 2001/0049590) teaches a system, method and program product for monitoring a complex signal for ultra sensitive detection of state changes.
- Ottosson (U.S. PAP 2001/005821) teaches method and system for monitoring the condition of an individual machine

#### Allowance

4. Claims 1-18 are allowed. The following is an examiner's statement of reasons for allowance:

In reference to claims 1 and 14: DiMaggio et al. (U.S. PAP 2003/0028332) teaches a rocket engine gear defect monitoring method (see DiMaggio et al., Fig. 1 and abstract). The parameters used to monitor the nature of the engine under test is conducted in relation to other test engines and collected data; then measurements acquired during ground testing of a rocket engine are preferably converted into a parameter that is indicative of anomalous behavior of the mechanical system (see

DiMaggio et al., page 2, paragraph 19). However, DiMaggio et al. uses tachometer measurement rather than the spectrum of distinct noise signals.

Whereas the claimed invention, as noted above, provides a spectrum base analysis that includes: recording signals simultaneously at different locations of a predetermined space; storing parameters related to the conditions under which the recording are made; determining the spectrum of the signal; detecting a line emerging from the background noise of the spectrum by using a predetermined emergence threshold; comparing the line with some or all of the signatures included in the set identified signatures; selecting at least one signature corresponding to the line to create at least one signature/line pair and identifying a source of the signal based on the selection.

The remaining claims are dependent upon claims 1 and 14 and contain further limitations.

### Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elias Desta whose telephone number is (571)-272-2214. The examiner can normally be reached on M-Thu (8:30-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571)-272-2216. The fax

phone numbers for the organization where this application or proceeding is assigned are (703)-872-9306 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)-272-1750.

Elias Desta  
Examiner  
Art Unit 2857

-ed

December 9, 2004



PATRICK ASSOUD  
PRIMARY EXAMINER